

**Claims**

1. Passenger detector comprising a flexible support made of an insulating material, at  
5 least two electrode structures arranged on said flexible support at a distance from  
each other, and a layer of semiconducting material arranged on top of said electrode  
structures in an active zone of said detector, said layer of semiconducting material  
being arranged in intimate contact with said electrode structures and having an  
internal resistance that varies with a deformation of said layer.  
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2. Detector according to Claim 1, wherein said flexible support comprises a woven  
fabric.
3. Detector according to Claim 1, wherein said flexible support comprises a non-  
15 woven fabric.
4. Detector according to Claim 1, wherein said electrode structures are deposited on  
said flexible support.
- 20 5. Detector according to Claim 1, wherein said electrode structures are printed on said  
flexible support.
6. Detector according to Claim 1, comprising a metallic layer, which is deposited on  
said flexible support, wherein said electrode structures are engraved or etched in  
25 said metallic layer.

7. Detector according to Claim 1, wherein said layer of semiconducting material comprises a semiconducting ink which is printed on said electrode structures.
8. Detector according to Claim 1, wherein said layer of semiconducting material  
5 comprises a conducting elastomer, granulated or non-granulated, which is deposited or stuck on said electrode structures.
9. Detector according to Claim 1, wherein the layer of semiconducting material is divided into several zones, said zones being arranged at different places on said  
10 electrode structures, thus defining several active zones of said detector.
10. Detector according to Claim 1, further comprising a protective layer applied onto said electrode structures and said layer of semiconducting material.
- 15 11. Vehicle seat comprising at least one passenger detector according to Claim 1.
12. Vehicle seat according to Claim 11, wherein said passenger detector is integrated into the surface of the seat.
- 20 13. Vehicle seat according to Claim 11, wherein said passenger detector is integrated into the into the back of the seat.
14. Vehicle seat according to Claim 11, wherein said passenger detector is integrated the head-rest.

15. Passenger detector comprising a flexible support made of an insulating fabric, at least two electrode structures arranged on said insulating fabric at a distance from each other, and a layer of semiconducting material arranged on top of said electrode structures in an active zone of said detector, said layer of semiconducting material being arranged in intimate contact with said electrode structures and having an internal resistance that varies with a deformation of said layer.
16. Passenger detector according to claim 15, wherein said electrode structures are printed on said insulating fabric.
17. Passenger detector according to claim 16, wherein said layer of semiconducting material comprises a semiconducting ink which is printed on said electrode structures.
18. Passenger detector having a plurality of active zones, said detector comprising a flexible support made of an insulating material, at least two electrode structures arranged on said flexible support at a distance from each other, and a layer of semiconducting material, said layer of semiconducting material having an internal resistance that varies with a deformation of said layer, said layer of semiconducting material being divided into several zones, each of said zones being arranged in one of said active zones of said detector on said electrode structures and in intimate contact with said electrode structures.